Alerts, Alarm and Troubleshooting

When an **ALERT** is activated:
1. The infusion continues and the LED indicator remains green.
2. Three beeps are heard approximately every three/four minutes.
3. A screen message alternates with the infusion running screen until the end of the battery/ infusion.

When an **ALARM** is activated:
1. The infusion stops.
2. The LED indicator light turns from green to red.
3. The alarm sound continuously until either the pump is paused or the problem is rectified.
4. A message appears on the display indicating the alarm cause.

Screen	Result/Cause	Possible Actions
xxxxxxxx Locked	Lock out mode is turned on and settings cannot be changed or the pump powered off. If necessary, unlock the keypad.	
Wrong Program Data. Check Data	The volume or time parameters that the user has entered conflict with the default parameters. Check parameters and re-enter data accordingly.	
Keypad Locked	During operation, all keys are disabled excluding the STOP/NO and INFO key. To unlock the keypad, press lock icon until the graph fills black and a beep is heard. To lock, reverse above procedure.	
Low Battery	Approximately 30 minutes of battery life are remaining. Connect to AC (mains) power supply to recharge the battery.	
Pump Stopped	Infusion has been stopped/ paused. A graph displays time on pause and time left until pump will alarm.	
Pump Paused Too Long	The pump has been in a pause state for 2 minutes and the alarm activates. To resume the infusion, press START/OK. To reset 2-minute pause, press STOP/NO.	
Air/Up Occlusion	Either air is present in the line, the clamp is closed or the set is loaded incorrectly. Disconnect line from patient and remove the air by re-priming, open clamp or re-load the line.	
Down Occlusion	Either the clamp is closed, the set is kinked, the cannula is blocked or the set is loaded incorrectly. Open clamp, un-kink line, replace cannula +/- line, or re-load the set into the pump.	
End Battery	Battery power is fully depleted and all power will be lost imminently. Immediately connect to mains power to recharge the battery.	
End of infusion	The infusion is complete/bag is empty. Prepare to start a new infusion if requried. If the pump is no longer needed, power off.	
Door Open	The pump door has opened. Close the door and recommence infusion. If the door cannot be closed, send the pump for service.	
Load Set Key & Close Door	The set has been loaded incorrectly or a set different than the MicroSet™ was loaded in the pump. Reload the set into the pump or change to a dedicated BodyGuard set.	
Restart Pump Error code xxx	A technical/system internal malfunction has occurred. Follow screen prompts and note error code. Discontinue pump use and return pump to local service department if the problem cannot be rectified.	

BodyGuard ColourVision 323™ Ambulatory Infusion Pump
Quick User Guide: Continuous, TPN, Intermittent, Steps and PCA

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Pump Features

1. Charger unit

2. Pump status indicator (green/red LED light)

3. Pump LCD display screen

4. Numerical keypad
- Use keys 0 to 9 to enter numeric values
- Use (.) to enter decimal place
- Use keys (←/4) or (→/.) to scroll left and right
- Use keys (↑/5) and (↓/0) to scroll up and down

5. Pump door

6. Battery and mains power status indicators

7. Pump/charger unit release button

8. Mains power lead and connection port

Monitoring During Infusion

Monitoring checks should include:
- Check keypad lock is applied.
- Check infusion history - repeatedly pressing the **INFO** key provides infusion and pump information.The actual screens that display will depend on the mode of operation configured but may include, for example, volume infused (VI) and volume left in the bag (VTBI), battery status (empty/full), infusion time left, time/date on pump and actual system pressure.

NOTE: The pump does not automatically change for daylight saving.

Notes

- Users must have undertaken training before operating this device.
- Refer to Operating Manual for full operating instructions.
- Screen information/sequences may vary with different software versions.
- The guidance given is based on pump default settings; the pump set up for your local area may vary if additional features/set-up options have been configured.
- Always follow screen prompts and before pressing keys to proceed ensure selections made correspond with what is required.

Start a New Infusion

Programming Tips
- The pump screen prompts guide you through each programming step. Always follow screen prompts and before pressing keys to proceed ensure selections made correspond with what is required.
- If the pump has been used previously, the previous values entered will display.
- To accept entered settings and move to the next step, press **START/OK**.
- To clear a displayed number or to back up to previous screens, press **STOP/NO**. as many times as needed.

Step 1.0 Preparation, Power On and Priming

1.1) Prepare and assemble pump, consumables and accessories.

1.2) Load the set into the pump. *NOTE: If manually priming the set, prime before loading the set into the pump, power on (omit steps 1.4 - 1.6) and go to Step 2.0*

1.3) To power on, press **ON/OFF** key.

1.4) To access the priming function, press **PRIME/BOLUS**.

1.5) To confirm priming is required, press **START/OK**. ENSURE THE SET IS DISCONNECTED FROM THE PATIENT BEFORE PRIMING.

1.6) Enter or check priming volume then press **START/OK**. (If re-priming is needed, repeat procedure). When priming is complete, the first programming screen displays. To change concentration (mg, mL or mcg/min) if required, press **STOP/NO**.

Step 2.0 Programming the Infusion

Pump programming. From this point, the screens that display will depend on the default mode. Follow the instructions below for the mode of operation being used shown below, when programming is complete, go to step 3.0

2.1 Continuous Infusion

For a rate over volume infusion:	**For a volume over time infusion:**
a) Enter rate, press **START/OK**.	a) Enter bag volume, press **START/OK**.
b) Enter bag volume, press **START/OK**.	b) Enter total time (hh:mm), press **START/OK**.
c) Check summary screen, press **START/OK**.	c) Check summary screen, press **START/OK**.

d) The screen displays "Start Infusion?". Connect pt to access device, when ready, press **START/OK**.
Now go to step 3.0

2.2 TPN Infusion (optional ramp up/down)

a) Enter bag volume, press **START/OK**.
b) Enter bag volume TBI, press **START/OK**.
c) Enter total time (hh:mm), press **START/OK**.
d) Enter UP time (if taper up not needed, set time to 00:00), press **START/OK**.
e) Enter DOWN time (if taper down not needed, set time to 00:00), press **START/OK**.
f) Enter KVO rate (if KVO not needed, set rate to 0mL/hr), press **START/OK**.
g) Check summary screen, press **START/OK**.
h) The screen displays "Start Infusion?". Connect pt to access device, when ready, press **START/OK**.
Now go to step 3.0

2.3 Intermittent Infusion

a) Enter bag volume, press **START/OK**.
b) Enter dose volume, press **START/OK**.
c) Enter number of doses (minimum), press **START/OK**.
d) For rate over volume infusion, enter the dose mL hour rate, press **START/OK**.
For a volume over time infusion, enter the dose duration (hh:mm), press **START/OK**.
e) Enter Interval Time, press **START/OK**.
f) Enter KVO mL/hr rate (KVO between doses), press **START/OK**.
g) Check summary screen, press **START/OK**.
h) The screen displays "Start Infusion?". Connect pt to access device, when ready, press **START/OK**.
Now go to step 3.0

2.4 Step Infusion (up to 25 Steps)

For a rate over volume infusion:	**For a volume over time infusion:**
Step 1	Step 2
a) Enter mL/hr rate, press **START/OK**.	a) Enter mL/hr rate, press **START/OK**.
b) Enter bag volume (mLs), press **START/OK**.	b) Enter time (hh:mm), press **START/OK**.

c) Continue entering and confirming data for as many steps as needed. If a step is not needed, enter and confirm "0" and the infusion summary screen displays.
d) Check summary screen, press **START/OK**.
e) The screen displays "Start Infusion?". Connect pt to access device, when ready, press **START/OK**.
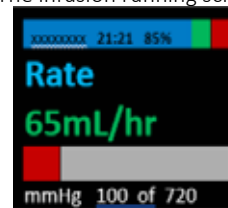Now go to step 3.0

2.5 PCA Infusion

a) Enter/confirm concentration, press **START/OK**.
b) Enter rate, press **START/OK**.
c) Enter maximum titration rate, press **START/OK**.
d) Enter bolus dose, press **START/OK**.
e) Enter rate, press **START/OK**.
f) Enter maximum bolus dose, press **START/OK**.
g) Enter lock out time between boluses, press **START/OK**.
h) Enter program limits (hours or mL), press **START/OK**.
i) Enter bag volume TBI (to be infused), press **START/OK**.
j) - To accept the program and to view program summary, press **START/OK**.
- To review program parameters and change settings if necessary, press **STOP/NO**.
k) Check summary screen, press **START/OK**.
l) The screen displays "Start Infusion?". Connect pt to access device, when ready, press **START/OK**.
Now go to step 3.0

Step 3.0 Starting the Infusion

The infusion running screen displays and the green LED light flashes intermittently.

Mode of operation/current time / battery % indicator

Infusion rate

System pressure bar

Note: This screen shot is an example of typical screen information.
Actual display will depend on mode of operation and programming data entered.